88-635

No. _____

Supreme Court, U.S.
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IN THE
SUPREME COURT OF THE UNITED STATES

October Term, 1988

DEMACO CORPORATION,
PAVER SYSTEMS, INC.,
COASTAL CONTRACTING CORPORATION and
R.I. LAMPUS COMPANY,
Petitioners,

- v. -

F. VON LANGSDORFF LICENSING LIMITED and
F. VON LANGSDORFF BAUVERFAHREN GmbH,
Respondents.

ON PETITION FOR A WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

PETITION FOR WRIT OF CERTIORARI

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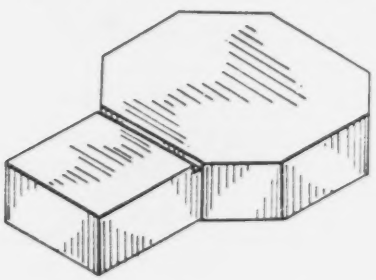
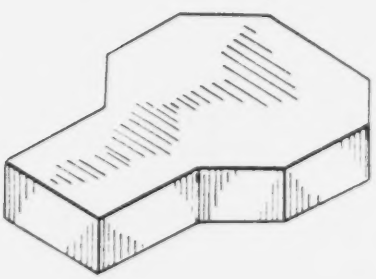
QUESTIONS PRESENTED FOR REVIEW

1. Did the Court of Appeals for the Federal Circuit, in effect, eliminate 35 U.S.C. §103 from the patent statutes by upholding a patent on a paving stone which is clearly suggested by the prior art merely because that paving stone may have enjoyed commercial success, which the District Court held was "weak"?

2. Did the Court of Appeals for the Federal Circuit fail to apply the mandates of this Court in respect of 35 U.S.C. §103 by reversing the District Court and holding that this paving stone



is patentable over this paving stone



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No._____

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PETITION FOR WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

I. OPINIONS BELOW

The opinion and judgment of the Court of Appeals for the Federal Circuit, reported at 851 F.2d 1387, reversing the District Court's judgment of patent invalidity and unenforceability are reproduced at A1 and A87, respectively.

The opinion and judgment of the District Court for the Middle District of Florida (May 22, 1986, unreported) entering judgment in favor of petitioners and finding the patent in issue invalid for obviousness and unenforceable for inequitable conduct are reproduced at A44 and A89, respectively. An order of the District Court dated March 31, 1987, amending the judgment is reproduced at A95.

II. JURISDICTION

The opinion and judgment of the Court of Appeals for the Federal Circuit sought to be reviewed was entered on June 21, 1988. This Petition for Writ of Certiorari was filed within 90 days of June 21, 1988. Jurisdiction of this Court is invoked under 28 U.S.C. §1254(1).

III. STATUTE INVOLVED

The statute involved in this case is 35 U.S.C. §103 which precludes patent protection for an invention which, even though novel under 35 U.S.C. §102, was obvious in view of the prior art. 35 U.S.C. §103 reads, in pertinent part, as follows:

> **"Conditions for patentability; non-obvious subject matter**
>
> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences betweeen the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

IV. STATEMENT OF THE CASE

The District Court's jurisdiction was based upon 28 U.S.C. §§1331, 1338(a), 2201 and 2202.

Petitioners Demaco Corporation ("Demaco"), R.I. Lampus Company ("Lampus") and Paver Systems, Inc. ("Paver Systems") are corporations of Florida, Pennsylvania and Ohio, respectively, and are in the business of manufacturing concrete products, including concrete paving stones. These paving stones are used for driveways, sidewalks, roadways, patios and the like. Petitioner Coastal Contracting Corporation ("Coastal") is a Florida corporation and is in the business of installing concrete paving stones.[1]

---

[1] Rule 28.1 Statement: All parties are identified in the caption of this petition. Petitioners have no parent companies, affiliates or subsidiaries.

Respondents F. von Langsdorff Licensing Limited ("Langsdorff Licensing") and F. von Langsdorff Bauverfahren GmbH ("Langsdorff GmbH") are corporations of Canada and the Federal Republic of Germany, respectively. United States Patent No. 4,128,357 ("Barth patent", reproduced at Supplemental Appendix page 9, including Reexamination Certificate No. B1 4,128,357, reproduced at Supplemental Appendix page 35), the sole patent at issue in this case, was granted to Gunter Barth and Fritz von Langsdorff, citizens of the Federal Republic of Germany, on December 5, 1978. The Barth patent was assigned to Langsdorff GmbH and Langsdorff Licensing holds exclusive license rights from Langsdorff GmbH. Neither respondent manufactures, sells or installs concrete paving stones, rather

they engage solely in the business of licensing trademarks, patents, and technical and other information to companies in the concrete paver business.

The paving stone covered by the Barth patent is manufactured and sold by a number of concrete paver manufacturers in the United States. One segment of those manufacturers elected to take licenses under the Barth patent. Another segment of those manufacturers refused to pay tribute to what they believe to be an invalid patent.

Demaco, having been threatened under the Barth patent, brought a civil action on August 6, 1984 seeking a declaratory judgment that the Barth patent was invalid for obviousness and unenforceable for failure to disclose material prior art to the Patent and Trademark Office. Respondents filed counterclaims against

Demaco, Paver Systems, Lampus, Coastal and Krehling Industries, Inc. ("Krehling"). Krehling settled with respondents prior to trial solely on economic considerations and the lack of importance of the product.

A bench trial was held on April 7-11 and 14, 1986 before Judge William J. Castagna. In an opinion and judgment dated May 22, 1986, and amended March 31, 1987, the District Court held inter alia that claims 9, 13 and 29-33 of the Barth patent, the only claims at issue, were invalid for obviousness under 35 U.S.C. §103.

In an opinion dated June 21, 1988, the Court of Appeals for the Federal Circuit reversed the District Court's judgment that claims 9, 13 and 29-33 of the Barth patent were invalid for obviousness. Petitioners' petition for

rehearing was denied by the Federal Circuit by an Order dated July 10, 1988 (Reproduced at A91) and the suggestion for rehearing in banc was declined by an Order dated September 1, 1988 (Reproduced at A93). Circuit Judges Nies and Bissell, who were not members of the original panel, voted to rehear the case in banc.

V. ARGUMENT

The decision of the Court of Appeals for the Federal Circuit, in reversing the District Court, is in direct conflict with this Court's decisions in Graham v. John Deere Co., 383 U.S. 1 (1966), Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp., 340 U.S. 147 (1950), Anderson's-Black Rock, Inc. v. Pavement

Salvage Co., 396 U.S. 57 (1969) and Sakraida v. Ag Pro, Inc., 425 U.S. 273 (1976).

The Federal Circuit has, in effect, decided that an invention which is novel under 35 U.S.C. §102 and which enjoys commercial success is now patentable. At best, the Federal Circuit has eroded the obviousness section of the patent statutes, 35 U.S.C. §103, so as to negate the holdings of this Court in Graham, A. & P., Anderson's-Black Rock and Sakraida; and, at worst, the Federal Circuit has effectively removed the obviousness section from the patent statutes.

The District Court properly followed the mandate of this Court on the issue of obviousness. The District Court held (A52-53):

> "The 'nonobviousness' requirement is set forth at 35 U.S.C. §103 and the seminal case on obviousness analysis is

> Graham v. John Deere Co., 383 U.S. 1 (1966). The Court is required to consider the scope and content of the prior art, evaluate the level of ordinary skill in the art at the time of the 'invention' and consider the differences between the prior art and the patent claims at issue. The Court also may consider secondary factors such as commercial success and the need filled by the product for which the patent is sought."

On the issue of commercial success the District Court held (A68-69):

> "The Court finds that secondary considerations are not significant in this case because first, the prior art so clearly indicates obviousness; second, the evidence of commercial success is weak; and third, the evidence of long felt need is nonexistent."

The District Court then concluded (A71):

> "In other words, the fact of commercial success alone does not render the product nonobvious. Notwithstanding the fact that commercial success is present, as it is to some degree in most all patent litigation, the Court finds it to be an insignificant factor in this case."

The Federal Circuit, without holding the District Court's findings on commercial success clearly erroneous, nevertheless stated at (A13):

> "The district court held that 'secondary considerations are not significant in this case because first, the prior art so clearly indicates obviousness . . . .' This misstates the law."

It is the Federal Circuit that has misstated the law and not the District Court. This Court stated in A. & P., 340 U.S. at 153:

> "The Court of Appeals and the respondent both lean heavily on evidence that this device filled a long-felt want and has enjoyed commercial success. But commercial success without invention will not make patentability."

This Court reiterated this standard in Anderson's-Black Rock, 396 U.S. at 61 (1969). In Graham v. John Deere Co., this Court stated, 383 U.S. at 17-18:

> "Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy."

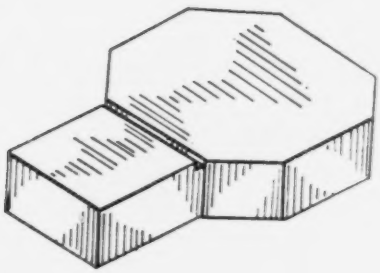
This is precisely the standard applied by the District Court.

The import of commercial success can be given no greater effect than as a secondary consideration. 35 U.S.C. §103 expressly states that obviousness shall be determined "at the time the invention was made". Looking at sales in the mid 1980's on an invention made in 1975

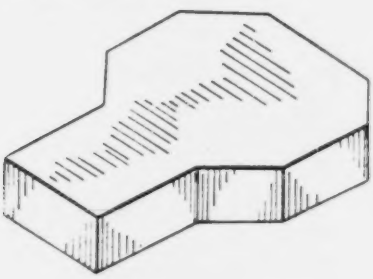
cannot be a substitute for the controlling factors specified by this Court, namely, the scope and content of the prior art, the differences between the prior art and the claims and the level of ordinary skill in the art. Anderson's-Black Rock, 396 U.S. at 62-63.

The egregiousness of the Federal Circuit's decision is apparent from a simple comparison of the paver covered by the Barth patent (Supplemental Appendix page 9) with the prior art. The Barth paver is a single stone having the surface appearance of an octagon head joined to a square stem with a dummy groove on the surface separating the head

from the stem. The following drawing more clearly shows the Barth paver:



The closest prior art is the paving stone shown in a photograph (reproduced at Supplemental Appendix page 37) published in a German newspaper. This prior art was never before the United States Patent and Trademark Office. A single paver from the German newspaper photograph is shown in the drawing below:



As can be seen clearly, the only structural difference between the Barth paver and the German newspaper paver is the dummy groove separating the square stem and octagonal head. The prior art of record (see German GM 7,409,912, for example, reproduced in part at Supplemental Appendix page 38) explicitly teaches that a dummy groove can be added to any paver to give a larger paver the appearance of smaller pavers. By simply modifying the paver shown in the German newspaper with a dummy groove, as is clearly suggested by the prior art, one skilled in the art is immediately given possession of the Barth paver.

Yet, even though the Barth invention was taught by the prior art,[2] the Federal

---

[2]The West German counterpart patent upon which the U.S. patent claims priority was held invalid in 1985 by the West German Federal Patent Court for precisely the same reasons and based on the same prior

Circuit found that commercial success (which the District Court found "weak") was sufficient to render the alleged invention patentable.

This Court has recognized that certain inventions may be commercially successful, but that does not override the mandate of §103 of the patent statute. This Court stated in Sakraida v. Ag Pro, Inc., 425 U.S. at 282-83:

> "Though doubtless a matter of great convenience, producing a desired result in a cheaper and faster way, and enjoying commercial success, Dairy Establishment 'did not produce a "new or different function". . . within the test of validity of combination patents.' Anderson's-Black Rock v. Pavement Co., supra, at 60. These desirable benefits 'without invention will not make patentability.' Great A. & P. Tea Co. v. Supermarket Corp., 340 U.S., at 153. See Dann v. Johnston, [425 U.S. 219] at 230 n. 4."

This Court also stated in Anderson's-Black Rock, 396 U.S. at 63:

> "Use of the radiant-heat burner in this important field marked a successful venture. But as noted, more than that is needed for invention."

The Federal Circuit has done precisely what this Court has said not to do. The Federal Circuit has held in the subject case that certain desirable benefits (the paving stone has the same pleasing appearance when laid in different laying patterns) when coupled with commercial success is sufficient to uphold a patent, irrespective of 35 U.S.C. §103 and the clear construction of that statute by this Court.

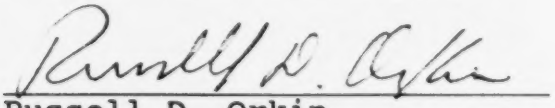
The District Court followed the statute and this Court's construction of it in holding that adding a known dummy groove to a known paver shape is obvious within the meaning of 35 U.S.C. §103. The Federal Circuit has misstated and

misapplied the statute and the proper construction of that statute as mandated by this Court. This Court should not permit such a decision to stand. It is time to direct this relatively new Court, which has under 28 U.S.C. §1295 been given exclusive jurisdiction in patent appeal cases from the District Courts, to follow the clear construction of 35 U.S.C. §103 as mandated by this Court.

VI. CONCLUSION

For the above stated reasons, petitioners respectfully request that this petition for writ of certiorari be granted.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that the foregoing PETITION FOR WRIT OF CERTIORARI and accompanying SUPPLEMENTAL APPENDIX have been served upon Albert C. Johnston, Esq., attorney for respondents, by mailing three copies thereof by first class mail, postage prepaid, to his office at St. Onge Steward Johnston & Reens, 986 Bedford Street, Stamford, Connecticut 06905, this 14th day of October, 1988.

Russell D. Orkin

Russell D. Orkin
Counsel of Record for Petitioners

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

86-1439

DEMACO CORPORATION,

Plaintiff-Appellee,

v.

F. VON LANGSDORFF LICENSING LIMITED and F. VON LANGSDORFF BAUVERFAHREN GmbH,

Defendants-Appellants.

DECIDED: June 21, 1988

Before FRIEDMAN, NEWMAN, and ARCHER, Circuit Judges.

NEWMAN, Circuit Judge.

F. Von Langsdorff Bauverfahren GmbH and F. Von Langsdorff Licensing Ltd. (together "Langsdorff") appeal the judgment[1] in favor of declaratory

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[1] Demaco Corporation v. F. Von Langsdorff Licensing Ltd., No. 84-1051-CIV-T-15 (M.D. Fla. May 22, 1986) (amended April

judgment plaintiff Demaco Corporation and counterclaim defendants Coastal Contracting Corporation, Paver Systems, Inc., and R. I. Lampus Company (together "Demaco"). The United States District Court for the Middle District of Florida, Tampa Division, held that claims 9, 13, and 29-33 of United States Patent No. 4,128,357 ("the Barth patent") are invalid for obviousness under 35 U.S.C. §103, that all of the claims are unenforceable for inequitable conduct, and thus that the patent is not infringed. We reverse.

1, 1987).

The Patented Invention

The patent claims here at issue are for a paving stone of specific shape and proportion, as illustrated in claim 9, an agreed "typical" claim (as rewritten in independent form):

> 9. Ground covering slab elements for paving ground areas, each of said elements being a single piece of concrete consisting of a head portion and a stem portion meeting at a dummy groove allowing, but not necessitating, breakage of said slab elements into heads and stems along said dummy grooves and being delimited by two opposite end faces of equal length joined by opposite sides that form angled traces about a longitudinal axis common to said head and said stem, each said angled trace being formed by a succession of sides comprising at said head an inclined side face inclined at 45° in one direction relatively to said axis, a lateral side face extending lengthwise with respect to said axis, and another inclined side face inclined at 45° in the opposite direction with respect to the

said axis, and comprising at said stem a lateral side face extending lengthwise with respect to said axis, each said lateral face of said stem being complementary to a lateral face of said head, said end face of said head together with said inclined sides of said head and said lateral faces of said head and said dummy groove describing a centrally symmetrically [sic] octagon, said dummy groove together with said end face of said stem and said lateral faces of said stem being symmetrical about the center of said stem, and said head and said stem being mirror symmetrical about said longitudinal axis, wherein said end face of said head, said lateral faces of said head, said inclined sides of said head and said dummy groove together describe an octagon, with equal lengths of said end face, said lateral faces and said dummy grove, and with equal lengths of said inclined sides of said head, wherein said inclined sides of said head are each shorter than said end face of said head.

Appellant Langsdorff describes the advantages of the Barth paving stone as combining the feature of structural strength obtained from an elongated, interlocking paver, with the feature whereby, however the asymmetric stone is laid, the effect is the same symmetrical pattern. These characteristics are illustrated in the brochure of one of the accused infringers, wherein the Barth stone is shown along with another commercial paving stone laid in the same patterns:

> [Page 3 of the Court's opinion showing the drawing here, is reproduced at page 1 of the Supplemental Appendix]

The Barth result is achieved by using the claimed paving stone.

Validity - 35 U.S.C. §103

A

Reexamination was requested on behalf of Langsdorff on December 2, 1982, and on behalf of Demaco on January 12, 1983. Both requestors brought new references before the United States Patent and Trademark Office ("PTO"). During reexamination the examiner confirmed some of the claims without change, Barth dropped some claims, and some new claims were added. The examiner gave the following reasons for allowing the claims:

> Claims 9 and 29-33 are considered to be allowable because the prior art does not suggest a paving stone having a head shaped as an octagon with a square stem separated by a dummy groove in which inclined sides of the head are each shorter than the end face of the head. Claim 13 is considered patentable because the prior art does not suggest

> a composite pavement formed by laying plural elements having an octagon head with a square stem separated by a dummy joint [laid] in a herringbone pattern as specified. Claims 20-28 are considered allowable because the prior art does not suggest a paving stone having the specific corner angles and indentations as specified.

After the PTO issued the reexamination certificate Demaco filed this declaratory judgment action. Following a trial to the bench, the district court held asserted claims 9, 13 and 29-33 invalid for obviousness. Langsdorff argues that the district court erred in its factual findings and in its application of the law.

Langsdorff asserts that a paving stone having the structure of the Barth paver, combining its ten-sided elongated shape with its appearance of an octagon joined to a square, and accompanying

structural and visual advantages, is not shown or suggested in the prior art. Langsdorff argues that even if retrospectively simple in concept, the Barth paving stone was "a new product in a millennia old art". Langsdorff thus argues that the district court did not understand the invention, pointing to the court's statement that

> [t]he essence of the advance made by the Barth paver is to accomplish with one piece of concrete that which could be accomplished with one square piece and one octagonal piece by joining the square to the octagon.

as demonstrating that the court believed that Barth had simply joined two paving blocks into one.

The prior art showed paving stones having the general elongated shape of the Barth stone but without the dummy groove:

and the geometrical figure of an octagon joined to a square was shown in mathematics texts. The prior art also showed other paving shapes having dummy grooves. The claimed relative dimensions are not shown in the prior art. Langsdorff further states, without apparent contradiction, that this symmetrical paving stone pattern giving the apearance of two different stones is not shown or suggested in the art. Nor does the prior art describe or suggest a stone that gives to paving the structural strength obtained here while achieving a harmonious appearance whatever the pattern in which the stones are laid. Langsdorff presented evidence that it is the overall shape that provides the traffic load strength, by enabling an interlocking pavement.

The district court held that the Barth stone gave "no significant structural advantage . . . over other pavers", and that "there is no evidence that the Barth paver makes a stronger or more durable pavement". The patent statute does not require that a patentable invention be superior to all prior devices. Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc., 807 F.2d 955, 960 n.12, 1 USPQ2d 1196, 1199 n.12 (Fed. Cir. 1986) ("Finding that an invention is an 'improvement' is not a prerequisite to patentability"); G. Rich, Principles of Patentability, 28 Geo. Wash. L. Rev. 393, reprinted in 42 J. Pat. Off. Soc'y 75 (1960) (discussing "the unsound notion that to be patentable an invention must be better than the prior art"). Nor does the patent statute

require than an invention be complex in order to be nonobvious. Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1572, 1 USPQ2d 1593, 1600 (Fed. Cir.), cert. denied, 107 S. Ct. 2187 (1987):

> Though technology has burgeoned, the patent system is not limited to sophisticated technologies . . . . Nowhere in the statute or the Constitution is the patent system opened only to those who make complex inventions difficult for judges to understand and foreclosed to those who make less mysterious inventions a judge can understand . . . .

See also van Veen v. United States, 386 F.2d 462, 465, 156, USPQ 403, 405 (Ct. Cl. 1967) ("Experience has shown that some of the simplest advances have been the most nonobvious").

It was not disputed that the Barth stone possessed a combination of advantages not obtained with prior

pavers. Indeed, the chairman of accused infringer Paver Systems testified to that effect:

> Q: It's true, is it not, that the herringbone bond lay of paving stones is quite important to the strength of the pavement under traffic load?
>
> A: Yes
>
> Q: In fact, your company has stressed that in its brochures, has it not?
>
> A: Yes
>
> Q: Isn't there an advantage in having a stone suitable of a variety of bonds including herringbone rather than herringbone bond only?
>
> A: Yes
>
> Q: Is it true from your experience that when one lays multiple pavers of the [Langsdorff] shape, no matter in which orientation they are laid the resultant pavement will have the same surface appearance pattern?
>
> A: Yes
>
> Q: Now, do you know of any [interlocking] paving stone that was ever produced and sold in the United States or Canada that has the two characteristics of being suitable for a variety of bonds, including herringbone, and when laid in a variety of

> bonds in a pavement shows the same surface appearance in the pavement? . . . .
> A: No.

We conclude that the district court clearly erred in its analysis of the differences between the Barth paver and the prior art.

B

The district court held that "secondary considerations are not significant in this case because first, the prior art so clearly indicates obviousness . . . ." This misstates the law. See Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 306, 227 USPQ 657, 674 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986) ("evidence on secondary considerations must have been considered prior to reaching a conclusion on

obviousness/nonobviousness"). This court wrote in Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1538-39, 218 USPQ 871, 879 (Fed. Cir. 1983):

> Indeed, evidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not. It is to be considered as part of all the evidence, not just when the decisionmaker remains in doubt after reviewing the art.

The commercial response to an invention is significant to determinations of obviousness, and is entitled to fair weight. Graham v. John Deere Co., 383 U.S. 1, 35-36, 148 USPQ 459, 474 (1966); Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 1461, 221 USPQ 481, 487 (Fed. Cir. 1984). The rationale for giving weight

to the so-called "secondary considerations" is that they provide objective evidence of how the patented device is viewed in the marketplace, by those directly interested in the product. See Graham, 383 U.S. at 35-36, 148 USPQ at 474:

> These legal inferences or subtests do focus attention on economic and motivational rather than technical issues and are, therefore, more susceptible of judicial treatment than are the highly technical facts often present in patent litigation.

and Safety Car Heating & Lighting Co. v. General Electric Co., 155 F.2d 937, 939, 69 USPQ 401, 403 (2d Cir. 1946) (L. Hand, J.):

> Courts, made up of laymen as they must be, are likely either to underrate, or to overrate, the difficulties in making new and profitable discoveries in fields with which they cannot be familiar; and, so far as it is available, they had best

> appraise the originality involved by the circumstances which preceded, attended and succeeded the appearance of the invention.

Although the district court concluded that commercial success "is an insignificant factor in this case", the record is to the contrary. At trial Demaco's counsel stated that:

> The patent has been copied . . . . Half of the industry are [licensees] . . . the other half are fighting this particular patent . . . .

The court held that Langsdorff's licensing success was "attributable to marketing efforts seeking broad relationships with licensees including several products, advertising, and technical assistance going beyond the monopoly on the Barth paver", and concluded that it had not been proved "that purchasers seek the product due to

its inherent qualities as opposed to other paving stone or nonpaving stone ground covering products." Langsdorff argues that the issue is not whether Langsdorff had a successful licensing program, but whether the patented invention was successful in the marketplace. That success was admitted by Demaco.

When a patentee asserts that commercial success supports its contention of nonobviousness, there must of course be a sufficient relationship between the commercial success and the patented invention. The term "nexus" is often used, in this context, to designate a legally and factually sufficient connection between the proven success and the patented invention, such that the objective evidence should be considered

in the determination of nonobviousness. The burden of proof as to this connection or nexus resides with the patentee. See, e.g., Cable Electric Products, Inc. v. Genmark, Inc., 770 F.2d 1015, 1027, 226 USPQ 881,888 (Fed. Cir. 1985).

In meeting its burden of proof, the patentee in the first instance bears the burden of coming forward with evidence sufficient to constitute a prima facie case of the requisite nexus. See Texas Dept. of Community Affairs v. Burdine, 450 U.S. 248, 254 n.7 (1981):

> The phrase "prima facie case" . . . may be used by courts to describe the plaintiff's burden of producing enough evidence to permit the trier of fact to infer the fact at issue.

(citing 9 J. Wigmore, Evidence § 2494 (3d ed. 1940) (hereinafter Wigmore)); E.W. Cleary, McCormick on Evidence § 342 (3rd ed. 1984) (hereinafter McCormick):

> The judge, using ordinary reasoning, may determine that fact A might reasonably be inferred from fact B, and therefore that the party has satisified his burden [of producing evidence], or as sometimes put by the courts, has made out a "prima facie" case. [footnotes omitted]

A prima facie case of nexus is generally made out when the patentee shows both that there is commercial success, and that the thing (product or method) that is commercially successful is the invention disclosed and claimed in the patent. When the thing that is commercially successful is not coextensive with the patented invention -- for example, if the patented invention

is only a component of a commercially successful machine or process -- the patentee must show prima facie a legally sufficient relationship between that which is patented and that which is sold. For example, in Hughes Tool Co. v. Dresser Industries, Inc., 816 F.2d 1549, 1556, 2 USPQ2d 1396, 1402 (Fed. Cir.), cert. denied, 108 S. Ct. 261 (1987), this court reviewed the relation between the patented feature and the thing sold and held that:

> Such continuous use of the patented feature while other features were not copied gives rise to an inference that there is a nexus between the patented feature and the commercial success.

See also Railroad Dynamics, Inc. v. A. Stucki Co., 579 F. Supp. 353, 366-67, 218 USPQ 618, 628 (E.D. Pa. 1983):

> [T]he testimony as to the advantage of the spaced structure with the biasing spring easily supports the inference that the claimed invention itself was responsible for this [commercial] success.

aff'd, 727 F.2d 1506, 220 USPQ 929 (Fed. Cir.), cert. denied, 469 U.S. 871 (1984).

When the patentee has presented a prima facie case of nexus, the burden of coming forward with evidence in rebuttal shifts to the challenger, as in any civil litigation. See Hazelwood School District v. United States, 433 U.S. 299, 314 (1977) (Stevens, J., dissenting) ("The basic framework [in a title VII action] is the same as that in any other lawsuit. The plaintiff has the burden of proving a prima facie case; if he does

so, the burden of rebutting that case shifts to the defendant"); see also McCormick § 336:

> The burden of producing evidence on an issue . . . is usually cast first upon the party who has pleaded the existence of the fact, but as we shall see, the burden may shift to the adversary when the pleader has discharged his initial duty. [footnote omitted]

It is thus the task of the challenger to adduce evidence to show that the commercial success was due to extraneous factors other than the patented invention, such as advertising, superior workmanship, etc. As discussed in Rosemount, Inc. v. Beckman Instruments, Inc., 727 F.2d 1540, 1546, 221 USPQ 1, 7 (Fed. Cir. 1984), "argument" and "conjecture" are insufficient:

> Beckman's argument that a nexus between commercial success and Cardeiro's invention is lacking

> and its conjecture that some of the commercial success here proven may have been due to elements in nonasserted claims are inadequate to overcome the objective evidence of record.

Id. Once a prima facie case of nexus is made the court must consider the evidence adduced on both sides of the question, with such weight as is warranted. See Ashland Oil, Inc. v. Delta Resins & Refractories, 776 F.2d 281, 306, 227 USPQ 657, 674 (Fed. Cir. 1985) ("The objective evidence of secondary considerations may in any given case be entitled to more or less weight, depending upon its nature and its relationship to the merits of the invention"), cert. denied, 475 U.S. 1017 (1986). When a prima facie case is made and not fully rebutted, the district court may not totally ignore the objective evidence. W.L. Gore &

Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1555, 220 USPQ 303, 314 (Fed. Cir. 1983) ("The objective evidence of nonobviousness . . . should when present always be considered as an integral part of the analysis"), cert. denied, 469 U.S. 851 (1984).

This evidentiary routine is reflected in the decisions of this and our predecessor courts, and appears to have been followed in most trial courts. For example, in Stevenson v. U.S. Int'l Trade Comm'n, 612 F.2d 546, 204 USPQ 276 (CCPA 1979) the patentee had in the first instance provided affidavit and survey evidence of public preference for the patented skateboard; the patentee was held to have

> establish[ed] prima facie a nexus between commercial success and the merit of

> appellant's invention, the provision of an inclined foot-depressible lever.

Id. at 553, 204 USPQ at 282-83. The burden of coming forward shifted to the challenger, who presented evidence of alternative reasons for the commercial success:

> In rebuttal, to show that the commercial success is unrelated to the merits of the invention, appellees presented [a witness] who gave his opinion that the commercial success was due to cosmetic reasons.

Id. The court determined that the appellee had not overcome the prima facie case of nexus, and took the objective evidence into account in its determination of nonobviousness:

> We consider the testimony proffered by appellee to be insufficient to overcome the evidentiary value of that of appellants. The net result is a positive inference that the claimed skateboard would have

> been unobvious at the time the invention was made to one of ordinary skill in the art.

Id. at 554, 204 USPQ at 283.

A patentee is not required to prove as part of its prima facie case that the commercial success of the patented invention is not due to factors other than the patented invention. It is sufficient to show that the commercial success was of the patented invention itself. A requirement for proof of the negative of all imaginable contributing factors would be unfairly burdensome, and contrary to the ordinary rules of evidence. See 9 Wigmore § 2486 at 291 ("Thus, in most actions of tort there are many possible justifying circumstances . . .; but it would be both unfair and contrary to experience to assume that one of them was probably present and to

require the plaintiff to disprove the existence of each one of them") (emphasis in original). See also Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1382, 231 USPQ 81, 92 (Fed. Cir. 1986), cert. denied, 107 S. Ct. 1606 (1987), where the court stated that "the record shows that advertising makes those in the industry--hospitals, doctors, and clinical laboratories--aware of the diagnostic kits but does not make these potential users buy them; the products have to work, and there is no evidence that that is not the case here or that the success was not due to the merits of the claimed sandwich assays--clearly contrary to the district court's finding." (Emphasis added.)

In the present case, Demaco admitted that the paving stone was commercially successful. In a letter written before filing suit, Demaco described this stone as "a most important segment of the paver market", and in another letter Demaco stated that "[t]his paver shape is in demand in both Georgia and Florida." It was further undisputed that it was the patented paving stone that was the thing sold in commerce. Demaco adduced no evidence to show that the paving stone's commercial success was due to any factor other than its patented structure. There was no evidence that its success was due, for example, to advertising or other factors unrelated to its technological advantages. By placing the burden on Langsdorff to prove that commercial success was <u>not</u> due primarily to

advertising or other factors such as technical service to licensees and the licensing of other products, the district court put the shoe on the wrong foot.[2] Demaco did not meet its burden of rebutting the prima facie case of nexus between the Langsdorff patented invention and its commercial success, and the district court clearly erred in its contrary finding.

Viewing all the factors pertinent to determination of obviousness, applying the guidelines of Graham v. John Deere, leads us to conclude that the presumption of validity had not been overcome by clear and convincing evidence. The

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[2]The court called the Barth paver "only a pedestrian advance".

holding of invalidity of claims 9, 13 and 29 through 33 for obviousness is reversed.

Inequitable Conduct

The district court held that the Barth patent was unenforceable for inequitable conduct, finding that German patent (Gebrauchsmuster) No. 1,998,249 ("Geb. '249") had been intentionally withheld from the PTO, and that the threshold of materiality had been met.

The concept of inequitable conduct in patent procurement derives from the equitable doctrine of unclean hands: that a person who obtains a patent by intentionally misleading the PTO can not enforce the patent. Inequitable conduct may be held although the common law elements of fraud are absent. To achieve a just application of this penalty in the

variety of situations that may arise, this court established a balancing test in American Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350, 1364, 220 USPQ 763, 774 (Fed. Cir.), cert. denied, 469 U.S. 821 (1984), whereby the materiality of the information that was not provided to the PTO is weighed against the intent of the actor. The court is charged with reaching an equitable result in view of the particular circumstances of the case.

Geb. '249 was disclosed to the German patent office and cited by the German examiner in connection with the German counterpart of the Barth patent. It shows a nine-sided paving stone having the laying pattern shown:

[Page 15 of the Court's opinion showing the drawing here, is reproduced at page 2 of the Supplemental Appendix]

The shape of Geb. '249 was described by the district court as "interesting in the sense that abnormal geometric forms are interesting." The court held that Geb. '249 satisfied the "but it may have been" test for materiality and should have been disclosed, although the court stated "the Court does not feel Geb. '249 is material when measured against the objective 'but for' test."

On the question of intent, the district court observed that Geb. '249 was a basis for rejection by the German

examiner, and concluded that Geb. '249 had intentionally been withheld from the United States PTO. The court found:

> The evidence shows that the applicants' German patent counsel intentionally did not provide his American counterpart with Geb. '249 despite the American attorney's inquiry specifically directed to that issue.

The "evidence" appears to consist solely of correspondence between the German attorney and the U.S. attorney, as follows:

On December 3, 1976 the German attorney wrote to the U.S. attorney stating:

> At first we would ask you to file the list of all prior art meanwhile become known to the Applicants beyond the citations made by the Examiner in the U.S. procedure.

The prior art listed by the German attorney included nine German references and one Austrian reference, including Geb. '249. Of these ten references, copies of the drawings of seven were enclosed with the letter, including the full text of two references. No copies of the remaining three (including Geb. '249) were sent.

A second letter from the German attorney dated December 10, 1976 listed four additional references cited by the German examiner, and included copies of drawings from these four references.

On December 21, 1976, the U.S. attorney sent a telex to the German attorney with the following message:

> Your letter of December 3 came without copies of listed U.M. 1957744, U.M. 1988249 [Geb. '249], and laid-open 1784497.

> Copies were received of [two other references] not mentioned in the letter. Please clarify.

The German attorney responded on December 22, 1976, as follows:

> With our letter of December 3, 1976 we intentionally did not send you the following references U.M. 1,957,744 and U.M. 1,988,249 and 'OS' 1,784,497, from among those mentioned . . . as this was not deemed necessary.

No further correspondence is of record. The U.S. attorney filed with the U.S. PTO a list of the references of which copies were sent with the December 3 and December 10 letters, along with the copies or drawings received, as required by PTO practice. The three references for which no copies were sent, including Geb. '249, were not listed.

Although the district court attributed culpable intent to the German attorney, this record does not show clear and convincing evidence thereof. The German attorney included Geb. '249 on "the list of all the prior art meanwhile become known to the Applicants". The district court did not discuss whether the U.S. attorney was delinquent, and may have deemed it exculpatory that the U.S. attorney inquired of the German attorney as to why copies of three references were not provided, and received the reply that it "was not deemed necessary". We need not speculate as to how the German attorney may have intended and the U.S. attorney may have interpreted this statement. Our task is to review whether the district court clearly erred in its finding of culpable intent. See FMC

Corp. v. The Manitowoc Co., 835 F.2d 1411, 1415, 5 USPQ2d 1112, 1115 (Fed. Cir. 1987) ("To be guilty of inequitable conduct, one must have intended to act inequitably").

Of the three unfiled references on the German attorney's list, only Geb. '249 is at issue. Although the absence of further investigation by the U.S. attorney of the possible relevance of Geb. '249 is a factor to be considered by the court, the court may consider all the surrounding circumstances. We note, for example, that Geb. '249 was listed in the German priority document filed with the PTO: this does not support a conclusion of intentional withholding. Indeed, the record contains no evidence of deliberate concealment.

> [A]n applicant who knew or should have known of the art or information, and of its materiality, is not automatically precluded thereby from an effort to convince the fact finder that the failure to disclose was nonetheless not due to an intent to mislead the PTO . . . .

Id. at 1416, 5 USPQ2d at 1116.

We conclude that there is not clear and convincing evidence to support the district court's finding of a deliberate intent to conceal Geb. '249. See id. at 1415, 5 USPQ2d at 1115 ("one who alleges a 'failure to disclose' form of inequitable conduct must offer clear and convincing proof"). The district court's finding of the intent element of inequitable conduct was therefore clearly erroneous; nor did the evidence of record establish gross negligence of such gravity as to warrant the drawing

therefrom of an inference of intent to deceive or mislead the PTO. We conclude that in these circumstances inequitable conduct has not been proved. The district court's judgment of unenforceability is reversed.

Infringement

The ruling of noninfringement flowed from the decision of invalidity and unenforceability, and was not otherwise discussed by the district court. Demaco's counsel told the court:

> [P]erhaps I should start by saying there is no question as to infringement. If the patent is held valid and enforceable, all of these parties are infringers . . . . we make no bones about it. The patent has been copied. . . . the issue of infringement just simply isn't in this case we've conceded on that point.

On this basis, we reverse the finding of noninfringement, and remand for determination of remedy.

REVERSED AND REMANDED

ARCHER, Circuit Judge, concurring.

I join the majority opinion except with respect to the majority's "Inequitable Conduct" analysis.

The German patent (Gebrauchsmuster), No. 1,988,249 (Geb. '249), in my view, fails to meet the threshold of materiality, even though a basis for rejection by the German examiner and by the U.S. examiner in the reexamination of the Barth '357 patent. It is, at best, merely cumulative of prior art disclosed. Geb. '249 discloses an asymmetrical nine-sided paving stone having a single laying pattern, as shown in the majority opinion. The U.S. examiner cited Geb.

'249 as showing "slab elements or paving modules being of a single piece of concrete consisting of a head portion and a stem portion." This much was shown by other prior art references which were before the U.S. examiner during prosecution of the Barth '357 patent. In reversing the German examiner's decision, the German Federal Patent Court stated that the

> covering element according to [Geb. '249] . . . which also has a head and a stem, is neither symmetrically designed about a longitudinal axis nor about another axis, and already for this very reason it is not suitable for giving suggestions to the person skilled in the art through which the features characterized in the claim and directed to a covering element which is symmetrical about a longitudinal axis could have been implied.

Claim 9 claims, inter alia, a "centrally symmetrically [sic] octagon" head and the head and stem "being mirror symmetrical about said longitudinal axis." Prior art references before the examiner during both the original examination of the Barth application and the reexamination proceeding disclosed paving stones or comparable elements having integral head and stem portions. Thus, even if the Geb. '249 stone had been symmetrical and of ten sides instead of nine, it would only be cumulative. Litton Industrial Products, Inc. v. Solid State Systems Corp., 755 F.2d 158, 167, 225 USPQ 34, 40 (Fed. Cir. 1985). Consequently, while the shape of Geb. '249 may have been "interesting," as the district court noted, it hardly satisfied the "but it may have been" test for

materiality as the district court held. Accordingly, it is unnecessary in my view to reach the intent question of the inequitable conduct inquiry.

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
TAMPA DIVISION

Case No. 84-1051-Civ-T-15

DEMACO CORPORATION,

Plaintiff,

vs.

F. VON LANGSDORFF LICENSING LIMITED and F. VON LANGSDORFF BAUVERFAHREN GMBH,

Defendants.

F. VON LANGSDORFF LICENSING LIMITED and F. VON LANGSDORFF BAUVERFAHREN GMBH,

Defendants/
counterclaimants,

vs.

DEMACO CORPORATION, COASTAL CONTRACTING CORPORATION, PAVER SYSTEMS, INC., and R.I. LAMPUS COMPANY,

Counterclaim
defendants.

MEMORANDUM OPINION - May 22, 1986

This primarily is a patent validity/infringement case with secondary forays into other spheres of dispute. Federal jurisdiction over the claims and counterclaims is based upon 28 U.S.C. §§ 1331, 1332, 1337, 1338, 1350, 2201 and 2202 and ancillary jurisdiction. Venue is proper in this Court.

The interests of plaintiff Demaco Corporation (Demaco), and third party defendants Coastal Contracting Corporation (Coastal), Paver Systems, Inc. (Paver Systems) and R.I. Lampus (Lampus) in this litigation essentially are identical and they shall be referred to collectively as the plaintiffs. The interests of F. Von Langsdorff Licensing Limited and F. Von Langsdorff

Bauverfahren GMBH are identical and they shall be referred to collectively as the defendants.

The plaintiffs seek a declaratory judgment that United States Patent No. 4,128,357 (the Barth patent), which is owned by defendants, is invalid and unenforceable. They contend that the subject matter of the patent, a concrete paving stone (the Barth paver), is not worthy of patent protection because it would have been obvious to one with ordinary skill in the prior art of designing paving stones. The plaintiffs also contend that the Barth patent was procured through inequitable conduct or fraud on the patent office because a known and material prior art reference intentionally was withheld from the patent examiner.

The plaintiffs further contend that the claims of the Barth patent are too imprecise to be worthy of protection, that the defendants should be estopped for laches from charging the plaintiffs with patent infringement, and that the defendants have violated antitrust laws in an effort to gain a monopoly in the paving stone industry.

The claims relating to allegations of laches, antitrust violations and the vagueness or impreciseness of the Barth patent were dismissed upon defendants' motion at the close of the plaintiffs' case in chief.

The defendants counter with claims that the plaintiffs willfully have infringed the Barth patent and have engaged in unfair competition by disparaging the defendants and

interfering with their business and contractual relations. The defendants further claim that the plaintiffs have infringed their trademarks. Finally, the defendants argue that the plaintiffs are estopped from attacking the validity of the Barth patent.

All parties contend that this is an exceptional case and seek attorneys fees under 35 U.S.C. § 285.

Paver Lock Litigation

The defendants devoted much time and effort throughout this litigation arguing that the plaintiffs should be estopped from attacking the Barth patent because Demaco, Paver Systems and Lampus participated in a common defense fund agreement relating to F. Von Langsdorff Licensing Limited et al v. Paver Lock, Inc., et al, Case No. 82-

8120 Civ. Nesbitt (Paver Lock litigation) in the Southern District of Florida. The Paver Lock litigation was a patent infringement/validity case and the common defense fund was established to assist Paver Lock in financing its defense on the infringement claims and, most mportantly, to properly finance Paver Lock's counterattack on the Barth patent.

The evidence shows that Paver Lock, Inc. was a relatively small corporation and that during the Paver Lock litigation it became insolvent. The evidence further showed that Paver Lock's owners had a falling out and went their separate ways and that none of them had any interest in continuing litigation over the Barth patent. The Paver Lock litigation ended with a default judgment for Von Langsdorff and an injunction

directed to Paver Lock, Inc. It is noteworthy that there was no consideration of the validity of the Barth patent in the Paver Lock litigation and that none of these plaintiffs were parties in that case.

The defendants agree, as they must, that in order to raise the Paver Lock litigation as an estoppel to the plaintiffs' claims that the Barth patent is invalid they must show that these plaintiffs did control the defense in the Paver Lock litigation and did cause or allow that case to go to default. The defendants have failed to make such a showing. Although the defendants make an interesting argument, and there is reason to believe that Demaco, Paver Systems and Lampus saw some potential strategic benefits in challenging the Barth patent

in another court, the evidence warrants the finding that the plaintiffs did not control the Paver Lock defense or participate in the decision to let the Paver Lock litigation go to default. Moreover, as this Court stated on June 28, 1985, "given the surrender of the defendant Paver Lock it is not clear that the contributors to the Common Defense Fund could have perpetuated the Paver Lock litigation."

It is also noteworthy that one of the plaintiffs in this case, i.e., Coastal, was not a participant in the Paver Lock litigation common defense fund agreement and there is no evidence whatsoever on which to base an estoppel argument against it.

Obviousness

The primary dispute in this case is whether or not the Barth patent is valid and enforceable. The central issue is whether the advances claimed by the Barth patent would have been obvious to one skilled in the paving stone art at the time the subject of the patent, the Barth paver, was developed. The plaintiffs concede that the Barth paver is useful and novel but contend that the paver is not patentable because it was not nonobvious.

The "nonobviousness" requirement is set forth at 35 U.S.C. § 103 and the seminal case on obviousness analysis is Graham v. John Deere Co., 383 U.S. 1 (1966). The Court is required to consider the scope and content of the prior art, evaluate the level of ordinary

skill in the art at the time of the "invention" and consider the differences between the prior art and the patent claims at issue. The Court also may consider secondary factors such as commercial success and the need filled by the product for which the patent is sought. Id. at 17-18.

It is important to note that the patent is presumed valid, see 35 U.S.C. § 282, and that the parties challenging the patent must show invalidity by clear and convincing evidence in order to defeat the claims. In this case the plaintiffs have the burden of clearly and convincingly showing that the Barth paver would have been obvious to one skilled in the paving stone art.

The appropriate starting point is a review of the claims at issue. The plaintiffs attack claims 9, 13 and 29-33 of the Barth patent.

Claim 9

> Ground covering slab elements for paving ground areas, each of said elements being a single piece of concrete consisting of a head portion and a stem portion meeting at a dummy groove allowing, but not necessitating, breakage of said slab elements into heads and stems along said dummy grooves and being delimited by two opposite end faces of equal length joined by opposite sides that form angled traces about a longitudinal axis common to said head and said stem, each said angled trace being formed by a succession of sides comprising at said head an inclined side face inclined at 45 degrees in one direction relatively to said axis, a lateral side face extending lengthwise with respect to said axis, and another inclined side face inclined at 45 degrees in the opposite direction with respect to the said axis, and comprising at said stem a lateral side face extending

lengthwise with respect to said axis, each said lateral face of said stem being complementary to a lateral face of said head, said end face of said head together with said inclined sides of said head and said lateral faces of said head and said dummy groove describing a centrally symmetrically [sic] octagon, said dummy groove together with said end face of said stem and said lateral faces of said stem being symmetrical about the center of said stem, and said head and said stem being mirror symmetrical about said longitudinal axis, wherein said end face of said head, said lateral faces of said head, said inclined sides of said head and said dummy groove together describe an octagon, with equal lengths of said end face, said lateral faces and said dummy groove, and with equal lengths of said inclined sides of said head, wherein said inclined sides of said head are each shorter than said end face of said head.

Claim 13

A composite paving structure consisting essentially of ground covering slab elements, said elements being laid laterally side by side so as to form a

substantially continuous paving, each said element being a single piece of concrete consisting of a head portion and a stem portion meeting at a dummy groove allowing, but not necessitating, breakage of said slab elements into heads and stems along said dummy grooves and being delimited by two opposite end faces of equal length joined by opposite sides that form angled traces about a longitudinal axis common to said head and said stem, each said angled trace being formed by a succession of sides comprising at said head an inclined side face inclined at 45 degrees in one direction relatively to said axis, a lateral side face extending lengthwise with respect to said axis, and another inclined side face inclined at 45 degrees in the opposite direction with respect to said axis, and comprising at said stem a lateral side face extending lengthwise with respect to said axis, each said lateral face of said stem being complementary to a lateral face of said head, said end face of said head together with said inclined sides of said head and said lateral faces of said head and said dummy groove describing a centrally symmetrical octagon, said dummy groove together with

said end face of said stem and said lateral faces of said stem being symmetrical about the center of said stem, and said head and said stem being mirror symmetrical about said longitudinal axis, wherein said elements are laid in herringbone bond pattern with said axes of said elements in one row thereof disposed at an angle of 90 degrees to said axes of said elements in an adjacent row thereof and with said stem of said elements in a row thereof inclined in like sense at an angle of 45 degrees to the direction of the row.

Claim 29

Paving stones for covering ground areas by being laid onto them each stone beside others, each said stone being a unitary shaped piece of concrete substantially longer than it is wide and mirror symmetrical relative to its central longitudinal axis, each said stone consisting of a centrally symmetrical head portion centered on said axis and a centrally symmetrical stem portion centered thereon and of less width than said head portion, said head portion being delimited by seven rectilinear side faces and a rectilinear notional plane throughout which said head

portion is integral with said stem portion, one of said side faces being an end face of the stone, two being inclined outward from said end face at an angle of 45 degrees to said axis, two being lateral faces extending parallel to said axis from said inclined faces, and two being inclined inward from said lateral faces at an angle of 45 degrees to said axis with their respective inner ends delimiting said notional plane, said stem portion being delimited by said notional plane and three rectilinear side faces of which two are lateral faces extending parallel to said axis from said inner ends and the third is the other end face of said piece, said lateral faces, said end faces and said notional plane all being of equal length, said inclined faces all being of equal length but substantially shorter than said end faces and said lateral faces, each said stone having a rectilinear dummy jointing gap formed in and across its upper side between the said inner ends, each said stone being layable beside others of said stones in any of several different patterns of load-resistant interengagement, including a herringbone bond pattern, in all of which the stones give

the surface appearance of octagonal stones laid beside square stones, said dummy jointing gap in each stone constituting a predetermined rupture zone along which the stone if overloaded in a pavement can break without noticeable change of said surface appearance.

Claim 30

A paving stone according to claim 29, said side faces of each of said stones being substantially vertrical and having oblique chamfered surfaces along their upper edges.

Claim 31

Slab elements for paving ground areas, each of said elements being a single piece of concrete consisting of a head portion and a stem portion meeting at a dummy groove allowing, but not necessitating, breakage of said slab elements into heads and stems along said dummy grooves and being delimited by two opposite end faces of equal length joined by opposite sides that form angled traces about a longitudinal axis common to said head and said stem, each said angled trace being formed by a succession of sides comprising at said head an

inclined side face inclined at 45 degrees in one direction relatively to said axis, a lateral side face extending lengthwise with respect to said axis, and an other [sic] inclined side face inclined at 45 degrees in the opposite direction with respect to the said axis, and comprising at said stem a lateral side face extending lengthwise with respect to said axis, each said lateral face of said stem being complementary to a lateral face of said head, said groove, said end faces, said inclined faces and said lateral faces each being rectilinear, said end faces, said lateral faces and said groove having equal lengths, said inclined side faces having equal lengths but each being substantially shorter than said end face of said head, said end face of said head together with said inclined sides of said head and said lateral faces of said head and said dummy groove describing a centrally symmetrical octagon, said dummy groove together with said end face of said stem and said lateral faces of said stem describing a square and being symmetrical about the center of said stem, and said head and

said stem being mirror symmetrical about said longitudinal axis.

Claim 32

A composite ground covering structure comprising a multiplicity of paving stones according to claim 29, 30 or 31, laid on a ground surface each beside others and forming a substantially continuous pavement of interengaged stones over said ground surface, said pavement irrespective of the pattern or patterns of interengagement of said stones giving substantially the same surface appearance as a pavement composed of octagonal stones and square stones.

Claim 33

A composite ground covering structure according to claim 32, at least some of said stones being interengaged in herringbone bond pattern with the longitudinal axes of stones in a row disposed at an angle of 90 degrees to said axes of stones in an adjacent row and inclined in line direction at an angle of 45 degrees to the direction of the row.

In less precise, or perhaps less obfuscatory, but somewhat more understandable terms those claims describe a brick-like paving stone with the surface appearance of an octagon shaped head portion joined to a square shaped stem portion with a dummy groove on the surface suggesting the line where the stem and head are joined (such groove providing the impression of the fourth side of the square meeting the eighth side of the octagon). The claims also show that the inclined sides of the octagon may be shorter than the other sides and indicate a variety of laying patterns. See, e.g., Exhibits A-E. [Exhibits A-E to the Court's opinion are reproduced at pages 3-7 of the Supplemental Appendix].

The parties have provided much evidence of the prior paving stone art and of analogous arts and the Court has assessed the relevance of those arts and what they taught at the time the Barth paver was developed. The evidence shows clearly that the relevant prior art included teachings from the design and construction arts relating to paving stones, concrete pavements, concrete pavers and other ground coverings and from analogous arts relating to the design and use of ceramics, primarily ceramic tiles, and floor and wall coverings. Moreover, it is undisputed that a person of ordinary skill in the paving stone art would have had a college education and would have had exposure and access to each of the above areas of knowledge.

The evidence as to the state of the prior art and the ordinary skill in art is in the form of expert testimony, prior patents and published materials. Moreover, the evidence in this case includes prior art references that were not before the examiner in the patent proceedings. The prior art teaches the use of concrete pavers for the purpose of covering the ground and teaches that such pavers can be manufactured in many shapes and sizes, octagons and squares included, and that they can be laid in many patterns, including patterns calling for square pavers to be used with octagonal pavers. The prior art teaches the design of a ten sided tile giving the appearance of an octagon and a square joined into one continuous unitary shape and shows that such tile was used to line the

swimming pool on board the ocean liner Queen Elizabeth II, a ship that often docked in the United States, and that such use was photographed and reported in a trade newspaper in Glasgow, Scotland in 1968. The prior art also teaches a design having the overall surface appearance of a Barth paver, without a dummy groove, being incorporated into an outdoor ground covering as shown by a microfiche reproduction of a 1974 West German newspaper account of the opening of the Muenster Zoo. The prior art further teaches that the geometric shape of the Barth paver was suggested strongly by text and sketch in the 1930 edition of NEW MATHEMATICAL PASTIMES, a work reviewing design applications of mathematics and geometry. See P. MacMahon, NEW MATHEMATICAL PASTIMES 112-

13 (1930) (a very well known repeating pattern for linoleum, pavements, etc. viz, the combination of the regular octagon and the square). The prior art teaches that pavers can be made to appear like two shapes and teaches the use of dummy grooves, chamfers, and bevels. Moreover, the prior art teaches that pavers can be made to lay evenly side by side and to fit tightly together and interlock for structural stability. Finally, the prior art teaches that pavers can be laid by hand or with mechanical assistance.

Notwithstanding the deference to be given to the decision of the patent examiner, the Court concludes that the evidence of the prior art and the ordinary skill in the art clearly and convincingly shows that the Barth paver

and the claims at issue do not constitute invention because their subject matter as a whole does not clear the hurdle of 35 U.S.C. § 103. One with ordinary skill in the paving stone art would have found the Barth paver to be obvious despite the fact that it seemingly was new and is useful. The essence of the advance made by the Barth paver is to accomplish with one piece of concrete that which could be accomplished with one square piece and one octagonal piece by joining the square to the octagon. Conceding the possible added utility of handling one paver rather than two, it is apparent that there is no laying pattern that can be achieved with the Barth paver that cannot be achieved using squares and octagons. That conclusion is only reinforced by the defendants' constant emphasizing that the

surface appearance of the Barth Paver camouflages the fact that square pavers and octagonal pavers are not present. The laying pattern potential of the Barth paver is a function of the geometry of the octagon and the square, not of the ten sided "Barthagon." Moreover, the evidence shows that there is no significant structural advantage realized through the use of the Barth paver over other pavers and there is no evidence that the Barth paver makes a stronger or more durable pavement. In short, the Barth paver represents only a pedestrian advance over the prior paving art.

The defendants offered some evidence and much argument about the commercial success of the Barth paver and about the fact that it was a new product in a millennia old art. The Court finds

that secondary considerations are not significant in this case because first, the prior art so clearly indicates obviousness; second, the evidence of commercial success is weak; and third, the evidence of long felt need is non existent. As to commercial success in general, the defendants' licensing agreements involve much more than patent rights on the Barth paver and it is apparent that a large amount of defendants' business success is attributable to marketing efforts seeking broad relationships with licensees including several products, advertising, and technical assistance going beyond the monopoly on the Barth paver. With regard to the commercial success of the Barth Paver, the Court notes that commercial success of the patented product is the

raison d'etre of patent litigation and that the relevance of commercial success to obviousness analysis is a function of the degree of success. The evidence in this case does not show particularly impressive commercial success attributable to the product alone and the Court finds the evidence of revenues to be inconclusive. The evidence of royalties and sales is not worthy of much credit because the data offered clearly was not carefully compiled or presented. It is apparent, for example, that currency exchange differences have not properly been taken into account. Moreover, sales and royalty data cannot provide the full picture of commercial success. There is no competent evidence of market share or that purchasers seek the product due to its inherent qualities

as opposed to other paving stone or nonpaving stone ground covering products. In other words, the fact of commercial success alone does not render the product nonobvious. Notwithstanding the fact that commercial success is present, as it is to some degree in most all patent litigation, the Court finds it to be an insignificant factor in this case.

Trademark Claim

The defendants charge plaintiffs with trademark infringement. The case in support of that claim is focused against Paver Systems and is so weak that if the claim cannot be called frivolous, it is at least petty.

The evidence showed that while Paver Systems was a licensee of defendants' trademark it accepted an order for a load of concrete paving

stones to be shipped to Florida and prepared and packed the stones for shipment. Shortly thereafter, Paver Systems withdrew from the licensing arrangement it had with the defendants and thereby lost the right to use the trademark in question. Subsequent to Paver Systems' withdrawal from the licensing agreement the previously sold and packed shipment of paving stones was shipped to Florida with packing labels attached bearing the defendants' trademark. This isolated use of defendants' trademark is the basis of the infringement claim.

The Court concludes that such circumstances at best constitute a technical violation and that in this case the error was de minimus and inadvertent. There is no evidence that the defendants

suffered any injury or damage from that isolated incident and the Court finds none.

Disparagement and Tortious Interference

The evidence shows that the plaintiffs communicated with other manufacturers in the paving stone industry and told them that the Barth patent probably was invalid for substantive reasons and because it may have been procured through fraud in the patent application process. The apparent purpose of such communications was to solicit financial assistance for litigation to challenge the validity of the patent.

The defendants contend that such communications interfered with the relationships they had with licensees and potential licensees and that such

communications were defamatory. However, the evidence did not show any instance in which any communication, written or otherwise, originating from these plaintiffs had any cognizable adverse effect upon a business or contractual relationship.

With respect to the contention that defendants have been defamed by accusations of fraud relating to the procurement of the Barth patent the Court notes that in this context fraud is not common law fraud but patent fraud or more precisely fraud on the patent office and the Court finds that in this case the plaintiffs had a reasonable basis for making such statements as were made in the various letters they sent to other manufacturers. For the most part, those communications reference or allude to

opinions of patent attorneys and simply state the grounds for attacking the validity of the patent. It is perhaps unfortunate that "fraud" is one of the terms used in patent law to describe a failure to disclose but the Court finds nothing in this case that fairly can be characterized as defamatory.

Inequitable Conduct

The plaintiffs contend that the defendants intentionally withheld from the United States Patent Office prior art consisting of West German Gebrauchsmuster (Patent) No. 1,988,249 (Geb. '249) and that such withholding or nondisclosure constitutes inequitable conduct or fraud on the patent office. At trial the plaintiffs conceded that in view of J.P. Stevens & Co., Inc. v. Lex Tex Ltd., Inc., 747 F.2d 1553 (Fed.Cir. 1984),

cert. denied, 106 S.Ct. 73 (1985), "inequitable conduct," as opposed to "fraud," is now the preferred label to place on allegations of nondisclosure or false disclosure of material information before the Patent Office.

There are three steps to an "inequitable conduct" analysis. First, the Court must determine whether the information withheld would have been material to the examination and materiality must be shown by clear and convincing evidence. Second, the Court must determine whether the nondisclosure was intentional with the purpose to mislead. Third, the Court must weigh and balance the materiality and the intent.

There are four accepted tests for assessing the materiality of the withheld information. They are 1) the

objective "but for" test; 2) the subjective "but for" test; 3) the "but it may have been" test; and 4) the PTO Rule 1.56(a) test (substantial likelihood that a reasonable examiner would have considered the omitted reference important in deciding whether to allow the application to issue as a patent) See Lex Tex, 747 F.2d at 1559; American Hoist & Derrick Co. v. Sowa & Sons, 725 F.2d 1350 (Fed. Cir.1984). The Court notes that the subjective "but for" test appears not be appropriate in this case because the patent examiner did not testify and there is no evidence to support that theory. See American Hoist, 725 F.2d at 1363 n. 4.

The appropriate starting point in the materiality analysis is the PTO Rule 1.56 test. PTO Rule 1.56(a) states as follows:

> § 1.56 Duty of disclosure; fraud; striking or rejection of applications.
>
> (a) A duty of candor and good faith toward the Patent and Trademark Office rests on the inventor, on each attorney or agent who prepares or prosecutes the application and on every other individual who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application. All such individuals have a duty to disclose to the Office information they are aware of which is material to the examination of the application. Such information is material where there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent. The duty is commensurate with the degree of

> involvement in the preparation or prosecution of the application.
>
> 37 CFR 1.56 (1985)

The evidence shows that the duty of disclosure as codified at PTO Rule 1.56 existed at all times material to this litigation notwithstanding the fact that the initial Barth application (Serial No. 672,727) was filed prior to the codification of that rule.

The issue then is whether there is a substantial likelihood that the patent examiner would have considered Geb. '249 important in deciding whether to allow the application to issue or whether, as defendants suggest, Geb. '249 would simply have been one more cumulative pea in the prior art pod.

Geb. '249 teaches a brick-like nine-sided paving stone with a rectilinear stem portion and an a-typical octagonal head portion. See Exhibit F. [Exhibit F to the Court's opinion is reproduced at page 8 of the Supplemental Appendix]. The notional line of the fourth side of the square stem reveals also the seventh side of the octagon. The eighth side of the octagon is that portion of what at first appears to be the long side of the stem that is above the intersection of the notional line. Unlike the Barth paver, Geb. '249 does not have a dummy groove. The shape of Geb. '249 is interesting in the sense that abnormal geometric forms are interesting. By appearance, Geb. '249 might be considered somewhat similar to the Barth paver and if the two were

related they perhaps could be cousins. (The record includes two paving stones. Plaintiffs' exhibit 93 is the Barth paver and plaintiffs' exhibit 23 is a reproduction of a Geb. '249.)

In the context of a review of prior art this Court is clearly convinced that Geb. '249 is material information. As the German patent examiner stated in his decision rejecting the Barth paver's German patent application, Geb. '249 "discloses a paving unit consisting of a first element and a second element (denoted there as an octagonal surface or alternatively, as a rectangular surface)" and teaches "to construct the first and second element as an integral form piece and to lay them together." See German Patent Office Decision, P 25 15 210.7-25 October 18, 1979 (Translation at

plaintiff's exhibit 68). Such are important aspects of the Barth paver and the fact that the German patent examiner singled out Geb. '249 from the prior art as significant only reinforces this Court's view that Geb. '249 is material and that the patent applicant should have realized as much. That is not to say that Geb. '249 would have been conclusive or would necessarily have changed the United States patent examiner's mind about the patentability of the Barth paver (i.e., the Court does not feel Geb. '249 is material when measured against the objective "but for" test) but only that Geb. '249 is material information when measured against the PTO standard or the "but it may have been" test and it should have been disclosed. See, e.g., Plastic Container Corp. v. Continental

Plastics, 607 F. 2d 885, 899 (10th Cir. 1979) (explanation of objective "but for," subjective "but for," and "but it might have been" tests for materiality).

The next prong of the analysis is intent to mislead. In this case there is direct evidence that the patent applicants were aware of Geb. '249, had disclosed it as prior art in Germany and intentionally withheld it from the United States patent examiner with no reasonable basis for considering it to be cumulative or "just one more pea in the pod." The evidence shows that the applicants' German patent counsel intentionally did not provide his American counterpart with Geb. '249 despite the American attorney's inquiry specifically directed to that issue.

The Court finds that the evidence shows that the plaintiffs have met their burden of showing materiality and intent and that "the scales tilt to a conclusion that inequitable conduct occurred." See Lex Tex, 747 F. 2d at 1560. Consequently, the claims of the Barth patent are unenforceable.

In accordance with the foregoing, it is

ORDERED

1. That judgment be entered for F. Von Langsdorff Licensing Limited and F. Von Langsdorff Bauverfahren Gmbh and against Demaco Corporation, Coastal Contracting Corporation, Paver Systems, Inc. and R.I. Lampus Company on the claim that the claims of United States Patent No. 4,128,357 are imprecise and the claim

that F. Von Langsdorff Licensing Limited and F. Von Langsdorff Bauverfahren Gmbh committed antitrust violations.

2. That judgment be entered for Demaco Corporation, Coastal Contracting Corporation, Paver Systems, Inc. and R.I. Lampus Company and against defendants F. Von Langsdorff Licensing Limited and F. Von Langsdorff Bauverfahren Gmbh:

a) declaring United States Patent No. 4,128,357 invalid for obviousness and unenforceable for inequitable conduct;

b) on the claim that Demaco, Coastal, Paver Systems and Lampus engaged in unfair competition and tortious interference with contractual relations;

c) on the claim that Demaco, Coastal, Paver Systems and Lampus engaged in trademark infringement;

d) on the claim that Demaco, Coastal, Paver Systems and Lampus committed patent infringement; and

e) for the costs of this action.

3. That each party shall bear its own attorneys' fees.

DONE AND ORDERED at Tampa, Florida this 22nd day of May, 1986.

/s/ William J. Castagna
WILLIAM J. CASTAGNA
UNITED STATES DISTRICT JUDGE

Copies to Counsel of Record

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

86-1439

DEMACO CORPORATION,

Plaintiff-Appellee,

v.

F. VON LANGSDORFF LICENSING LIMITED and
F. VON LANGSDORFF BAUVERFAHREN GmbH,

Defendants-Appellants.

Judgment

ON APPEAL from the U.S. District Court for the Middle District of Florida, Tampa Division

in CASE NO(S). 84-1051-Civ-T-15

This CAUSE having been heard and considered it is

ORDERED and ADJUDGED: REVERSED AND REMANDED

ENTERED BY ORDER OF THE COURT

/s/ Francis X. Gindhart
Francis X. Gindhart, Clerk

DATED JUN 21 1988

ISSUED AS A MANDATE: July 27, 1988
Costs: Against; Appellee
Printing $1,759.30
Total. $1,759.30

United States District Court
MIDDLE DISTRICT OF FLORIDA

DEMACO CORPORATION,

Plaintiff,
V.

F. VON LANGSDORFF LICENSING, LIMITED, et al.,

Defendants

CASE NUMBER 84-1051-Civ-T-15

JUDGMENT IN A CIVIL CASE

___ Jury Verdict. This action came before the Court for a trial by jury. The issues have been tried and the jury has rendered its verdict.

_x_ Decision by Court. This action came to trial or hearing before the Court. The issues have been tried or heard and a decision has been rendered.

IT IS ORDERED AND ADJUDGED

That Judgment is hereby entered in accordance with the Memorandum Opinion entered on May 22, 1986.

May 22, 1986
Date

DONALD M. CINNAMOND
Clerk

/s/ Geraldine Greene
(by) Deputy Clerk

United States Court of Appeals for the Federal Circuit

86-1439

DEMACO CORPORATION,

Plaintiff-Appellee,

v.

F. VON LANGSDORFF LICENSING LIMITED and F. VON LANGSDORFF BAUVERFAHREN GmbH,

Defendants-Appellants.

Before FRIEDMAN, NEWMAN, and ARCHER, Circuit Judges.

O R D E R

A petition for rehearing having been filed in this case,

UPON CONSIDERATION THEREOF, it is ORDERED that the petition for rehearing be, and the same hereby is, denied.

The suggestion for rehearing in banc is under consideration.

FOR THE COURT:

/s/ Francis S. Gindhart
Francis X. Gindhart, Clerk

7/10/88
Date

cc: Mr. Albert C. Johnston
Mr. Russell D. Orkin

United States Court of Appeals for the Federal Circuit

86-1439

DEMACO CORPORATION,

Plaintiff-Appellee,

v.

F. VON LANGSDORFF LICENSING LIMITED and F. VON LANGSDORF BAUVERFAHREN GmbH,

Defendants-Appellants.

O R D E R

A suggestion for rehearing in banc having been filed in this case, and a response thereto having been invited by the court and filed,

UPON CONSIDERATION THEREOF, it is

ORDERED that the suggestion for rehearing in banc is declined.

Judge Nies and Bissell would grant the suggestion for rehearing in banc.

FOR THE COURT:

/s/ Francis X. Gindhart
Francis X. Gindhart, Clerk

9/1/88
Date

cc: Mr. Albert C. Johnston
Mr. Russell D. Orkin

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
TAMPA DIVISION

DEMACO CORPORATION,

Plaintiff,

v.

F. VON LANGSDORFF LICENSING LIMITED and F. VON LANGSDORFF BAUVERFAHREN GmbH,

Defendants,

F. VON LANGSDORFF LICENSING LIMITED and F. VON LANGSDORFF BAUVERFAHREN GmbH,
Defendants-counter-claimants,

v.

DEMACO CORPORATION, COASTAL CONTRACTING CORPORATION, PAVER SYSTEMS, INC., and R. I. LAMPUS COMPANY
Counterclaim Defendants.

Case No. 84-1051-Civ-T-15

ORDER - March 31, 1987

The Court has considered defendants' motion for relief from judgment and the plaintiff's response. Plaintiff is correct in its assertion that the Court's ruling on materiality did not result from any translation error in plaintiff's exhibit 68. Rather, the ruling on materiality was based on the Court's own viewing of Geb. '249 and the Court's recognition that the German examiner considered Geb. '249 to be significant. Consequently, defendant's motion for relief will be denied. However, because both sides have pointed out that only claims 9, 13, and 29-33 of the Barth patent were at issue in connection with the obviousness

allegations, the Court's final order and judgement must be amended in that regard and therefore, it is

ORDERED:

1. Defendant's motion for relief from judgment (D 134) is granted to the limited extent that the following language on page 24 of the Court's order of May 22, 1986 is deleted:

> a) declaring United States Patent No. 4,128,357 invalid for obviousness and unenforceable for inequitable conduct

and the following language is substituted therefor:

> a) declaring claims 9, 13 and 29-33 of United States Patent No. 4,128,357 invalid for obviousness and also declaring United States Patent No. 4,128,357 unenforceable for inequitable conduct.

Defendant's motion for relief is denied in all other respects.

2. Defendants' motion to defer taxation of costs pending resolution of appeal (D 139) is denied.

DONE AND ORDERED at Tampa, Florida this 31st day of March, 1987.

/s/ William J. Castagna
WILLIAM J. CASTAGNA
UNITED STATES DISTRICT JUDGE

Copies to Counsel of Record